

**IN THE CLAIMS:**

Please delete claims 1-34, without prejudice, and add new claims 35-68 as follows.

Claims 1-34. (Cancelled).

35. (New) A method of determining the path of a signal between a donor network element and a remote station, the donor network element being associated with at least one repeater, comprising the steps of: receiving at the remote station a plurality of signals associated with a plurality of network elements; calculating an estimate of the distance between the remote station and each network element, including an estimate of the distance between the remote station and each repeater associated with the donor network element; determining the one of said estimates of the distance between the donor network element and at least one associated repeater and remote station which most closely approximates to the distance between the other network elements and the remote station; and selecting that donor network element/repeater to be the source of the signal.

36. (New) A method according to claim 35, wherein the step of calculating an estimate of the distance between the remote station and each network element comprises: selecting each one of the donor network elements and at least one repeater in turn as the source of the signal; and performing said calculating step for only the selected one of the donor network element and at least one repeater.

37. (New) A method according to claim 35, wherein the step of calculating the estimate of the distance includes estimating the location of the remote station and thereby

estimating an actual distance between each donor network element/repeater and the remote station.

38. (New) A method according to claim 37 wherein the step of calculating the estimate of the distance includes measuring physical quantities at the remote station, and thereby estimating a model distance between each network element/repeater and the remote station.

39. (New) A method according to claim 38 wherein the measured physical quantity includes the measurement, at the remote station, of one or all of: a time delay in a received signal; attenuation in a received signal or received signal strength.

40. (New) A method according to claim 39 wherein the step of estimating the actual distances further comprises summing the estimated actual distances.

41. (New) A method according to claim 40 wherein the step of estimating the model distances further comprises summing the model distances.

42. (New) A method according to claim 41 further including calculating a scale factor in dependence on the summed actual and model distances.

43. (New) A method according to claim 42 wherein the scale factor is determined to adapt the scaled sums to be equal.

44. (New) A method according to claim 43 wherein the scale factor is determined by dividing the summed actual estimates by the summed model estimates.

45. (New) A method according to claim 43 wherein the model distances estimates are modified in dependence on said scale factor to produce a set of modified model distances.

46. (New) A method according to claim 45 wherein the model distances are scaled by the scaling factor to produce the modified model distances.

47. (New) A method according to claim 46 further including calculating a difference value for each donor network element and at least one repeater by summing the difference between each estimate and each modified model estimate obtained for each respective donor network element and at least one repeater.

48. (New) A method according to claim 47 wherein, the signal is determined to be transmitted from the donor network element or at least one repeater having the lowest difference value.

49. (New) A method according to claim 35 wherein a plurality of signals are from a donor network element, wherein all steps are repeated for each such signal to determine a source of each signal.

50. (New) A method according to claim 35, further comprising the step of calculating the location of the remote station in dependence on the determined source of the signal.

51. (New) A method according to claim 35 wherein the remote station is a mobile station and the donor network element is a donor base station.

52. (New) A network device adapted to determine the path of a signal between a donor network element and a remote station, the donor network element being associated with at least one repeater, comprising means for calculating an estimate of the distance between the remote station and each network element, including an estimate of the distance between the remote station and each repeater associated with the donor network

element, based on a plurality of signals received at a mobile station; means for determining the one of said estimates of the distance between the donor network element and at least one associated repeater and remote station which most closely approximates to the distance between the other network elements and the remote station; and means for selecting that donor network element/repeater to be the source of the signal.

53. (New) A network device according to claim 52, wherein the remote station is a mobile station and the network element is a base station.

54. (New) A network device according to claim 52 wherein the means for calculating an estimate of the distance between the remote station and each network element includes: means for selecting each one of the donor network elements and at least one repeater in turn as the source of the signal; and means for performing said calculating step for only the selected one of the donor network element and at least one repeater.

55. (New) A network device according to claim 52 wherein the means for calculating the estimate of the distance includes means for estimating the location of the remote station and thereby estimating an actual distance between each donor network element/repeater and the remote station.

56. (New) A network device according to claim 55 wherein the means for calculating the estimate of the distance includes means for measuring physical quantities at the remote station, and thereby estimating a model distance between each network element/repeater and the remote station.

57. (New) A network device according to claim 56 wherein the measured physical quantity includes the measurement, at the remote station, of one or all of: a time delay in a received signal; attenuation in a received signal or received signal strength.

58. (New) A network device according to claim 57 wherein the means for estimating the actual distances further comprises means for summing the estimated actual distances.

59. (New) A network device according to claim 58 wherein the means for estimating the model distances further comprise means for summing the model distances.

60. (New) A network device according to claim 59 further including means for calculating a scale factor in dependence on the summed actual and model distances.

61. (New) A network device according to claim 60 wherein the means for calculating the scale factor is adapted to convert the scaled sums to be equal.

62. (New) A network element according to claim 61 wherein the scale factor is determined by dividing the summed actual estimates by the summed model estimates.

63. (New) A network device according to claim 61 wherein the model distances estimates are modified in dependence on said scale factor to produce a set of modified model distances.

64. (New) A network device according to claim 63 wherein the model distances are scaled by the scaling factor to produce the modified model distances.

65. (New) A network device according to claim 64 further including means for calculating a difference value for each donor network element and at least one repeater, including a summer for summing the difference between each estimate and each modified

model estimate obtained for each respective donor network element and at least one repeater.

66. (New) A network device according to claim 65 wherein the signal is determined to be transmitted from the donor network element or at least one repeater having the lowest difference value.

67. (New) A network device according to claim 52 wherein a plurality of signals are received from a donor network element, wherein all steps are repeated for each such signal to determine a source of each signal.

68. (New) A network device according to claim 52, further comprising means for calculating the location of the remote station in dependence on the determined source of the signal.